SECTION 27 41 16

INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

GUIDE SPECIFICATION

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Specifier: Please see PART 4 for a listing of products specified in this Guide Specification.

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1. GENERAL

NOT USED in this Guide Specification. Specifier shall Specify PART 1 administrative and procedural requirements as needed.

1. PRODUCTS
   1. CEILING SPEAKER TYPE 1:

Specifier Note: The Saros Express ICE4T model is a 2-way in-ceiling speaker featuring a 4 inch woofer and wide-dispersion, horn-loaded 3/4 inch dome tweeter. Saros® Express speakers by Crestron® deliver easy installation and excellent performance in a range of popular sizes for cost-sensitive commercial applications.

* + 1. Basis of Design:
       1. **Crestron SAROS ICE4T**
    2. Device Architecture
       1. Enclosure material: Zinc-plated steel, plenum rated.
       2. Baffle: ABS UL94V-0 plastic.
       3. Grille:
          1. Steel
          2. Magnetically held frameless design
          3. White or black textured finish, paintable
       4. Mounting:
          1. Flush ceiling mount.
          2. Four integral two-step toggle mounting clamps.
          3. Maximum ceiling thickness: 2.4 inches (61 mm).
          4. Cutout diameter: 7.75 inches (197 mm).
          5. Minimum ceiling cavity depth: 6.9 inches (176 mm).
       5. Environmental Operating Conditions:
          1. Temperature: -2° to 120°F (-19° to 49°C)
          2. Humidity: 5% to 95% RH (non-condensing)
       6. Included Accessories:
          1. Support bridge for tile ceiling installation.

Adjustable for off center installation.

* + - 1. Optional Accessories:
         1. Safety Tether

Have a minimum of two (2) safety wire installation points.

* + - * 1. Black Grille
      1. Termination:
         1. 4-pin 5 mm screw down conductor detachable terminal block with speaker input and parallel pass-through connections.
         2. Maximum wire size: 12 AWG.
         3. Conduit knockouts:

One 0.5-inch knockout.

One 0.75-inch knockout.

* + - 1. Dimensions:
         1. Diameter: 8.53 inches (217 mm), not including toggles.
         2. Depth: 7.13 inches (181 mm).
      2. Weight: 7.0 lb. (3.2 kg)
      3. Drivers:
         1. 4-inch (102 mm) treated paper woofer with ring mode decoupled cloth surround and steel basket
         2. .79-inch (20 mm) treated cloth dome horn loaded tweeter
    1. Functions
       1. Speaker unit shall be equipped for Low Impedance 8 Ω or High Impedance 70 V or 100 V operation.
          1. Accessible front mounted low impedance, high impedance selector switch.
       2. High Impedance Line Transformer:
          1. Four level taps at 70 V:

3.75 Watts

7.5 Watts

15 Watts

30 Watts

* + - * 1. Three level taps at 100 V:

7.5 Watts

15 Watts

30 Watts

* + - * 1. Low Impedance transformer by-passed:

8 Ω

* + - 1. Sensitivity: 89 dB at 1 W, 1 m away.
      2. Frequency Response: Within plus or minus 3 dB from 85 to 20,000 Hz.
      3. Frequency Range: Within minus 10 dB from 75 to 20,000 Hz.
      4. Crossover Frequency: 2 kHz
      5. Nominal Coverage: 95 degrees conical.
      6. Power Handling: 40 Watts Program at 8 Ω.
    1. Compliance
       1. UL Listed for US & Canada
          1. UL 1480
          2. UL 2043
       2. CE
       3. FCC Part 15 Class B
  1. CEILING SPEAKER TYPE 2:

Specifier Note: The Saros Express ICE6T model is a 2-way in-ceiling speaker featuring a 6-1/2 inch woofer and wide-dispersion, horn-loaded 1 inch dome tweeter. Saros® Express speakers by Crestron® deliver easy installation and excellent performance in a range of popular sizes for cost-sensitive commercial applications.

* + 1. Basis of Design:
       1. **Crestron SAROS ICE6T**
    2. Device Architecture
       1. Enclosure material: Zinc-plated steel, plenum rated.
       2. Baffle: ABS UL94V-0 plastic.
       3. Grille:
          1. Steel
          2. Magnetically held frameless design
          3. White or black textured finish, paintable
       4. Mounting:
          1. Flush ceiling mount.
          2. Four integral two-step toggle mounting clamps.
          3. Maximum ceiling thickness: 2.4 inches (61 mm).
          4. Cutout diameter: 9.875 inches (250 mm).
          5. Minimum ceiling cavity depth: 8.1 inches (206 mm).
       5. Environmental Operating Conditions:
          1. Temperature: -2° to 120°F (-19° to 49°C)
          2. Humidity: 5% to 95% RH (non-condensing)
       6. Included Accessories:
          1. Support bridge for tile ceiling installation.

Adjustable for off center installation.

* + - 1. Optional Accessories:
         1. Safety Tether

Have a minimum of two (2) safety wire installation points.

* + - * 1. Black Grille
      1. Termination:
         1. 4-pin 5 mm screw down conductor detachable terminal block with speaker input and parallel pass-through connections.
         2. Maximum wire size: 12 AWG.
         3. Conduit knockouts:

One 0.5-inch knockout.

One 0.75-inch knockout.

* + - 1. Dimensions:
         1. Diameter: 10.57 inches (269 mm), not including mounting dogs.
         2. Depth: 8.31 inches (211 mm).
      2. Weight: 10.0 lb. (4.5 kg)
      3. Drivers:
         1. 6-inch (165 mm) treated paper woofer with ring mode decoupled cloth surround and steel basket

.98-inch (25 mm) treated cloth dome horn loaded tweeter

* + 1. Functions
       1. Speaker unit shall be equipped for Low Impedance 8 Ω or High Impedance 70 V or 100 V operation.
          1. Accessible front mounted low impedance, high impedance selector switch.
       2. High Impedance Line Transformer:
          1. Four level taps at 70 V:

3.75 Watts

7.5 Watts

15 Watts

30 Watts

* + - * 1. Three level taps at 100 V:

7.5 Watts

15 Watts

30 Watts

* + - * 1. Low Impedance transformer by-passed:

8 Ω

* + - 1. Sensitivity: 89 dB at 1 W, 1 m away.
      2. Frequency Response: Within plus or minus 3 dB from 75 to 20,000 Hz.
      3. Frequency Range: Within minus 10 dB from 60 to 20,000 Hz.
      4. Crossover Frequency: 2.5 kHz.
      5. Nominal Coverage: 95 degrees conical.
      6. Power Handling: 60 Watts Program at 8 Ω.
    1. Compliance
       1. UL Listed for US & Canada
          1. UL 1480
          2. UL 1480A
          3. UL 2043
       2. CE
       3. FCC Part 15 Class B
  1. CEILING SPEAKER TYPE 3:

Specifier Note: The Saros Express ICE6LPT model is a 2-way in-ceiling speaker featuring a 6-1/2 inch woofer and wide-dispersion, horn-loaded 1 inch dome tweeter. Its low-profile enclosure allows for installation in constricted ceiling spaces as shallow as 5-1/8 inches (130 mm). Saros® Express speakers by Crestron® deliver easy installation and excellent performance in a range of popular sizes for cost-sensitive commercial applications.

* + 1. Basis of Design:
       1. **Crestron SAROS ICE6LPT**
    2. Device Architecture
       1. Enclosure material: Zinc-plated steel, plenum rated with side entry cable clamp
       2. Baffle:
          1. ABS UL94V-0 plastic.
       3. Grille:
          1. Steel
          2. Magnetically held frameless design
          3. White textured finish, paintable
       4. Mounting:
          1. Flush ceiling mount.
          2. Four integral two-step toggle clamps
          3. Maximum ceiling thickness: 2.4 inches.
          4. Recommended cutout diameter: 9.875 inches.
          5. Minimum ceiling cavity depth: 5.2 inches.
       5. Environmental Operating Conditions:
          1. Temperature: -2° to 120°F (-19° to 49°C)
          2. Humidity: 5% to 95% RH (non-condensing)
       6. Included Accessories:
          1. Support bridge for tile ceiling installation.

Adjustable for off center installation.

* + - 1. Optional Accessories:
         1. Safety Tether

Have a minimum of two (2) safety wire installation points.

* + - * 1. Black Grille
      1. Termination:
         1. 4-pin 5 mm screw down conductor detachable terminal block with speaker input and parallel pass-through connections.
         2. Maximum wire size: 12 AWG.
      2. Dimensions:
         1. Diameter: 10.64 inches, not including mounting dogs.
         2. Depth: 5.30 inches.
      3. Weight: 9.2 lb.
      4. Drivers:
         1. 6.5-inch (165 mm) treated paper woofer with ring mode decoupled cloth surround and steel basket
         2. .98-inch (25 mm) treated cloth dome horn loaded tweeter
    1. Functions
       1. Speaker unit shall be equipped for Low Impedance 8 Ω or High Impedance 70 V or 100 V operation.
          1. Accessible front mounted low impedance, high impedance selector switch.
       2. High Impedance Line Transformer:
          1. Four level taps at 70 V:

3.75 Watts

7.5 Watts

15 Watts

30 Watts

* + - * 1. Three level taps at 100 V:

7.5 Watts

15 Watts

30 Watts

* + - * 1. Low Impedance transformer:

8 Ω

* + - 1. Sensitivity: 89 dB at 1 W, 1 m away.
      2. Frequency Response: Within plus or minus 3 dB from 85 to 20,000 Hz.
      3. Frequency Range: Within minus 10 dB from 70 to 20,000 Hz.
      4. Crossover frequency: 2.5 kHz.
      5. Nominal Coverage: 95 degrees conical.
      6. Power Handling: 60 W program at 8 Ω
    1. Compliance
       1. UL Listed for US & Canada
          1. UL 1480
          2. UL 1480A
          3. UL 2043
       2. CE
       3. FCC Part 15 Class B
  1. CEILING SPEAKER TYPE 4:

Specifier Note: The Saros Express ICE8T model is a 2-way in-ceiling speaker featuring an 8 inch woofer and wide-dispersion, horn-loaded 1 inch dome tweeter. Saros® Express speakers by Crestron® deliver easy installation and excellent performance in a range of popular sizes for cost-sensitive commercial applications.

* + 1. Basis of Design:
       1. **Crestron SAROS ICE8T**
    2. Device Architecture
       1. Enclosure material: Zinc-plated steel, plenum rated.
       2. Baffle: ABS UL94V-0 plastic.
       3. Grille:
          1. Steel
          2. Magnetically held frameless design
          3. White textured finish, paintable
       4. Mounting:
          1. Flush ceiling mount.
          2. Four integral two-step toggle mounting clamps.
          3. Maximum ceiling thickness: 2.4 inches (61 mm).
          4. Cutout diameter: 11.3125 inches (287 mm).
          5. Minimum ceiling cavity depth: 8.9 inches (226 mm).
       5. Environmental Operating Conditions:
          1. Temperature: -2° to 120°F (-19° to 49°C)
          2. Humidity: 5% to 95% RH (non-condensing)
       6. Included Accessories:
          1. Support bridge for tile ceiling installation.

Adjustable for off center installation.

* + - 1. Optional Accessories:
         1. Safety Tether

Have a minimum of two (2) safety wire installation points.

* + - * 1. Black Grille
      1. Termination:
         1. 4-pin 5 mm screw down conductor detachable terminal block with speaker input and parallel pass-through connections.
         2. Maximum wire size: 12 AWG.
         3. Conduit knockouts:

One 0.5-inch knockout.

One 0.75-inch knockout.

* + - 1. Dimensions:
         1. Diameter: 12.07 inches (307 mm), not including toggles.
         2. Depth: 9.10 inches (231 mm).
      2. Weight: 12.2 lb (5.7 kg).
      3. Drivers:
         1. 8-inch (203 mm) treated paper woofer with ring mode decoupled cloth surround and steel basket
         2. .98-inch (25 mm) treated cloth dome horn loaded tweeter
    1. Functions
       1. Speaker unit shall be equipped for Low Impedance 8 Ω or High Impedance 70 V or 100 V operation.
          1. Accessible front mounted low impedance, high impedance selector switch.
       2. High Impedance Line Transformer:
          1. Five level taps at 70 V:

3.75 Watts

7.5 Watts

15 Watts

30 Watts

60 Watts

* + - * 1. Four level taps at 100 V:

7.5 Watts

15 Watts

30 Watts

60 Watts

* + - * 1. Low Impedance transformer by-passed:

8 Ω

* + - 1. Sensitivity: 89 dB at 1 W, 1 m away.
      2. Frequency Response: Within plus or minus 3 dB from 70 to 20,000 Hz.
      3. Frequency Range: Within minus 10 dB from 55 to 20,000 Hz.
      4. Crossover Frequency: 2.5 kHz
      5. Nominal Coverage: 95 degrees conical.
      6. Power Handling: 75 Watts Program at 8 Ω.
    1. Compliance
       1. UL Listed for US & Canada
          1. UL 1480
          2. UL 1480A
          3. UL 2043
       2. CE
       3. FCC Part 15 Class B
  1. CEILING SPEAKER TYPE 5:

Specifier Note: The Saros Express ICE8LPT model is a 2-way in-ceiling speaker featuring an 8 inch woofer and wide-dispersion, horn-loaded 1 inch dome tweeter. Its low-profile enclosure allows for installation in constricted ceiling spaces as shallow as 5-1/8 inches (130 mm). Saros® Express speakers by Crestron® deliver easy installation and excellent performance in a range of popular sizes for cost-sensitive commercial applications.

* + 1. Basis of Design Product:
       1. **Crestron SAROS ICE8LPT**
    2. Device Architecture
       1. Enclosure material: Zinc-plated steel, plenum rated with side entry cable clamp
       2. Baffle: ABS UL94V-0 plastic.
       3. Grille:
          1. Steel
          2. Magnetically held frameless design
          3. White textured finish, paintable
       4. Mounting:
          1. Flush ceiling mount.
          2. Four integral two-step toggle clamps
          3. Maximum ceiling thickness: 2.4 inches (61 mm).
          4. Recommended cutout diameter: 11.3125 inches (287 mm).
          5. Minimum ceiling cavity depth: 5.2 inches (130 mm).
       5. Environmental Operating Conditions:
          1. Temperature: -2° to 120°F (-19° to 49°C)
          2. Humidity: 5% to 95% RH (non-condensing)
       6. Included Accessories:
          1. Support bridge for tile ceiling installation.

Adjustable for off center installation.

* + - 1. Optional Accessories:
         1. Safety Tether

Have a minimum of two (2) safety wire installation points.

* + - * 1. Black Grille
      1. Termination:
         1. 4-pin 5 mm screw down conductor detachable terminal block with speaker input and parallel pass-through connections.
         2. Maximum wire size: 12 AWG.
      2. Dimensions:
         1. Diameter: 12.13 inches (308 mm), not including mounting dogs
         2. Depth: 5.30 inches (135 mm).
      3. Weight: 10.8 lb. (4.9 kg)
      4. Drivers:
         1. 8-inch (203 mm) treated paper woofer with ring mode decoupled cloth surround and steel basket
         2. .98-inch (25 mm) treated cloth dome horn loaded tweeter
    1. Functions
       1. Speaker unit shall be equipped for Low Impedance 8 Ω or High Impedance 70 V or 100 V operation.
          1. Accessible front mounted low impedance, high impedance selector switch.
       2. High Impedance Line Transformer:
          1. Four level taps at 70 V:

3.75 Watts

7.5 Watts

15 Watts

30 Watts

* + - * 1. Four level taps at 100 V:

7.5 Watts

15 Watts

30 Watts

* + - * 1. Low Impedance transformer:

8 Ω

* + - 1. Sensitivity: 89 dB at 1 W, 1 m away.
      2. Frequency Response: Within plus or minus 3 dB from 80 to 20,000 Hz.
      3. Frequency Range: Within minus 10 dB from 65 to 20,000 Hz.
      4. Crossover frequency: 2.5 kHz.
      5. Nominal Coverage: 95 degrees conical.
      6. Power Handling: 60 W program at 8 Ω
    1. Compliance
       1. UL Listed for US & Canada
          1. UL 1480
          2. UL 1480A
          3. UL 2043
       2. CE
       3. FCC Part 15 Class B

1. EXECUTION

NOT USED in this Guide Specification. Specifier shall Specify PART 3 On-Site work as needed.

1. APPENDICES
   1. SPECIFIED PRODUCTS
      1. Crestron SAROS ICE4T
      2. Crestron SAROS ICE6T
      3. Crestron SAROS ICE6LPT
      4. Crestron SAROS ICE8T
      5. Crestron SAROS ICE8LPT